



# ILSAC GF-6A / 6B API SP Introduction

It has been 10 years in developing the new ILSAC GF-6 performance specification for Passenger Car Motor Oils. First market use for ILSAC GF-6 will begin May 1, 2020. Nine to 12 months after the May 1, 2020 first allowable use date, ILSAC GF-6 will be mandatory for all light-duty engine oils bearing the American Petroleum Institute's starburst trademark. ReluDyne will begin supplying bulk and packaged GF-6 technology on a rolling change after May 1, 2020.

## ILSAC GF-6 has three significant areas of improvements over GF-5:

1. **Fuel Economy**
2. **Oxidative Stability**
3. **Piston Deposits**

These improvement needs are a result of a drive to smaller engines without a sacrifice of power. Technology such as "Eco-Boost" (Turbo Charge), in combination with small engines, provides better fuel economy while maintaining the performance level of the larger engine designs. This technology significantly increases pressure on the lubricant in the form of heat and a need to control wear and deposits.

## GF-6 Tests Performed

### The following new engine tests were developed for GF-6:

- Sequence IX (Low-speed Pre-ignition Test)
- Sequence X Test (Chain-wear Test)
- Sequence IIIH (Oxidation and Deposit Test)
- Sequence IVB Test (Cam/Wear Test)
- Sequence VH Test (Sludge and Varnish Test)
- Sequence VIE Test (Fuel Economy Test)
- Sequence VIF (Fuel Economy Test)
- Sequence VIII (Corrosion Test)

<p><b>Performance Equal to GF-5</b></p> <ul style="list-style-type: none"> <li>• LOW TEMP WEAR CONTROL</li> <li>• HIGH TEMP WEAR CONTROL</li> <li>• CORROSION PROTECTION</li> <li>• SHEAR STABILITY</li> <li>• CATALYST COMPATIBILITY</li> <li>• HIGH TEMP DEPOSIT CONTROL</li> <li>• LOW TEMP PUMPABILITY</li> <li>• E85 COMPATIBILITY</li> </ul>
<p><b>Performance Improvements to GF-5</b></p> <ul style="list-style-type: none"> <li>• OXIDATION STABILITY</li> <li>• PISTON CLEANLINESS</li> <li>• SLUDGE / VARNISH CONTROL</li> <li>• FUEL ECONOMY</li> <li>• FUEL ECONOMY RETENTION</li> </ul>
<p><b>New Performance Requirements</b></p> <ul style="list-style-type: none"> <li>• TIMING CHAIN WEAR</li> <li>• LOW SPEED PRE-IGNITION</li> <li>• LOW VISCOSITY GRADE</li> </ul>

ILSAC GF-6A	ILSAC GF-6B
<b>More robust than ILSAC GF-5</b>	
Increased durability LSPI prevention	Increased durability LSPI prevention
<b>Fuel Economy and FE Retention</b>	
GOOD RATING Measured by sequence VIE	BETTER RATING Measured by sequence VIF
<b>SAE Grades</b>	
Current ILSAC GF-5 grades	Fuel Economy grades below SAE 0W-20
<b>High Temp / High Shear Viscosity</b>	
>2.6 mPa.s2	0.3 - 2.6 mPa.s
<b>Symbol</b>	
<b>Backwards Compatible</b>	
YES	NO

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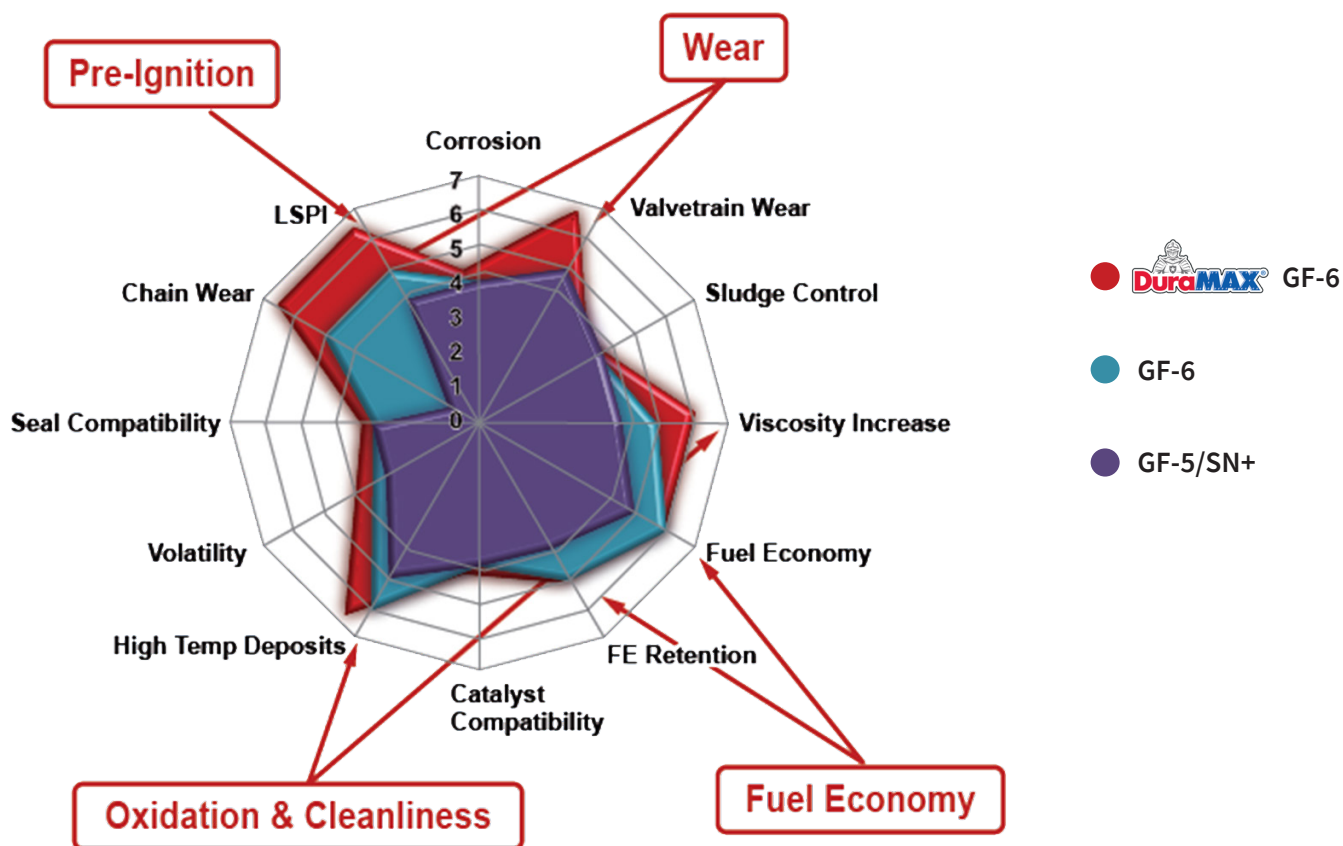


# ILSAC GF-6A / 6B API SP Introduction

DuraMAX's new GF-6 Technology in testing for approval has demonstrated outstanding performance features and benefits in the following critical areas:

1. Wear Performance
2. Oxidation & Cleanliness performance
3. Pre-ignition control
4. Fuel Economy

## Performance of DuraMAX's GF-6 Technology



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# ILSAC GF-6A / 6B API SP Introduction

Products	Part Numbers	Product Specifications
DuraMAX Full Synthetic 0W-16	950259016SY	GF-6B/SP
DuraMAX Full Synthetic 0W-20	950259020SY	GF-6A/SP
DuraMAX Full Synthetic 5W-20	950250520SY	GF-6A/SP
DuraMAX Full Synthetic 5W-30	950250530SY	GF-6A/SP
DuraMAX Full Synthetic 10W-30	950251030SY	GF-6A/SP
DuraMAX Full Synthetic dexos1™ Gen 2 0W-20	950259020D2	GF-6A/SP
DuraMAX Full Synthetic dexos1™ Gen 2 5W-30	950250530D2	GF-6A/SP
DuraMAX High Mileage Synthetic Blend 5W-20	95026052000	GF-6A/SP
DuraMAX High Mileage Synthetic Blend 5W-30	950260530HM	GF-6A/SP
DuraMAX High Mileage Synthetic Blend 10W-30	950261030HM	GF-6A/SP
DuraMAX High Mileage Synthetic Blend 10W-40	95026104000	GF-6A/SP
DuraMAX Synthetic Blend 0W-20	950249020SB	GF-6A/SP
DuraMAX Synthetic Blend 5W-20	950240520SB	GF-6A/SP
DuraMAX Synthetic Blend 5W-30	950240530SB	GF-6A/SP
DuraMAX Synthetic Blend 10W-30	950241030SB	GF-6A/SP
DuraMAX Synthetic Blend 10W-40	950241040SB	SP
DuraMAX Synthetic Blend 20W-50	950242050SB	SP

The following symbols will be displayed on all licensed products that meet the new specifications



This new shield badge will be displayed for GF-6B oils, which is not backward compatible to any previous standard. These oils are far less common than GF-6A types and will be limited to SAE 0W-16 and below.



The API “Starburst” signifies oils which meet the latest International Lubricant Specification Advisory Committee (ILSAC) standard. The ILSAC standards are developed by vehicle and engine manufacturers, oil and additive companies and industry trade associations such as API, ACC, ASTM and SAE. These oils provide engine protection while also delivering improved fuel economy and emission system protection. Before May 1: GF-5. After May 1: transition to GF-6A.



The API donut denotes the latest service category from the American Petroleum Institute. Before May 1: API SN (or SN Plus). After May 1: transition to API SP.

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